

PD-ABL-355

95333

Trip Report

Ghana STD Evaluation Assessment

November 7 - 18, 1993

John W. Peabody

INITIATIVES

PRIVATE INITIATIVES FOR PRIMARY HEALTHCARE



JSI RESEARCH & TRAINING INSTITUTE
1616 N. FORT MYER DRIVE - 11TH FLOOR
ARLINGTON, VIRGINIA 22209

Trip Report

Ghana

STD Evaluation Assessment

November 7 – 18, 1993

John W. Peabody

Table of Contents

Executive Summary 1

Background / Scope of Work 3

Trip Activities 5

Recommendations and Next Steps 9

Appendix A: List of Contacts 12

Appendix B: STD Survey Instrument 15

Acronyms

AIDS	Acquired immune deficiency syndrome
EEC	Commission of the European Community
GRMA	Ghana Registered Midwives Association
HIV	Human immunodeficiency virus
REDSO	USAID Regional Economic Development Services Office
SGMDP	Society of General Medical and Dental Practitioners
STD	Sexually transmitted disease
USAID	U.S. Agency for International Development
WHO	World Health Organization

Executive Summary

At the request of the Initiatives project, an evaluation trip was made to Ghana and the headquarters of the World Health Organization by Dr. John W. Peabody of the Rand Corporation during November 7 - 18, 1994. The purpose of this trip was twofold: first, to review the progress the local initiative groups have made in designing their activities with regard to the evaluation of the overall project, and second, to determine if the prevention and control of sexually transmitted diseases (STDs) is suitable to include in the evaluation activities of the Initiatives project. For the latter objective, a brief assessment of the epidemiologic, clinical and economic features of STD care in the private sector was proposed.

With regard to the first objective, the local initiative groups are beginning to determine possible evaluation activities as part of their overall activities. While more development in this area is needed, evaluation efforts can already be initiated. Such efforts might be simplified if a well-defined primary care clinical intervention was included in all the groups' activities. One simple clinical model, that may be appropriate and useful in Ghana, is identification and care of STDs.

But there is little data on STD care in Ghana. It seems that demand for STD care is scattered and well below the clinical need. While only a few cases are seen each day at the two main public STD facilities, and the private practitioners working with the Initiatives project say that they only see a few cases, the high prevalence of HIV suggests that demand for STD care should be much higher. Explanations for this disparity include the high prevalence of penicillin resistance, the high cost of drugs, and providers' inability to perform basic diagnostic tests. Given the ineffectiveness of the formal medical system, patients seek care from pharmacists, chemical sellers, and traditional healers. Each of these groups were informally surveyed. This informal survey showed that pharmacists do not provide medications without a prescription and that chemical sellers have access only to ineffective antibiotics. Furthermore, patients receive only a few doses of medication. Patients seek care from informal sources because the health outcomes after using a nonformal provider approximate the health outcomes in the formal medical sector (both public and private).

Based on these findings several recommendations are made:

- The local initiative groups in Ghana need to more precisely define their activities, target populations, and desired objectives. These decisions should be made as soon as possible to facilitate the evaluation process.
- STDs are a simple, appropriate clinical model that could be used as a component of the overall evaluation.
- The demand for STD care in Ghana is low, but better delivery of services in the private sector might tap the unmet need for care.

- Evaluation and assessment interventions, whether provided by the private or the public sector, should follow standard survey instruments developed by the World Health Organization as closely as possible. Results from the use of these instruments will permit comparisons to be drawn and plausible assumptions made when data is limited.
- Legislative changes should be considered that will allow nurse-midwives to legally provide STD care. And nurse-midwives will need to be trained.
- Mechanisms for bulk purchases of gram stain and wet mount materials (for diagnosis) and cephalosporins or quinolones (for treatment of gonorrhoea) will be required.
- Marketing campaigns in collaboration with ongoing efforts of the National AIDS/STD Prevention and Control Programme to inform customers that effective, safe therapy is available for the treatment of STDs in the private (as well as public) sector could also be established.
- These various efforts should concentrate and enhance demand and make it easier for private providers to remain financially viable.

Background / Scope of Work

The Private Initiatives for Primary Healthcare project, managed by JSI Research and Training, aims to help the private sector provide basic health services to the urban poor. This evaluation trip follows two previous trips to Ghana to survey data available on the private health sector in Ghana. This travel and all activities were funded by the U.S. Agency for International Development through a cooperative agreement with the Bureau for Research and Development, Office of Health.

The basic assumption of the Initiatives project is that the private sector can and should provide more primary healthcare. The reason that private providers cannot do this, in economic terms, is that there is a market failure. If this assumption is correct, it means that there is a specific failure that can be identified and possibly corrected. In Ghana, the Initiatives project has selected three "local initiative groups," local private organizations starting up primary care programs. These groups are currently identifying and describing their market constraints. The local groups believe they will be able to provide more primary healthcare services in the future once they are able to overcome the current impediments to their private practices. The challenge for the project is not only to help the groups overcome these barriers but also to find ways to measure their many activities and ascertain which interventions are effective.

This framework presupposes that there is a medical condition or conditions that can be measured and improved after attempting to correct the market failure. Measurement of potential improvement, therefore, could be done by either looking at health outcomes or, where outcomes are linked to interventions, changes in health processes or delivery. Sexually transmitted diseases (STDs) may prove to be a useful clinical setting for evaluating improved care in the private sector. They are a common primary care problem effecting 250 million people worldwide, and a recognized cofactor in HIV transmission. Moreover, they are a set of diseases that produce specific symptoms in patients, are amenable to accurate diagnosis, and there is effective therapy available for definitive treatment.

These features, combined with the alarming rise of HIV in West Africa and the Ghanaian government's concern for healthcare, make STD prevention and control a potentially useful component of the overall evaluation of the Initiatives project.

A trip was conducted November 7 to 18, 1993 and included travel to the headquarters of the World Health Organization (WHO) in Geneva and to Ghana, Accra. The purpose of this trip was to:

1. Review the progress local initiative groups have made in designing their activities with particular regard to the evaluation component of the overall project.

2. Determine if STD prevention and control is a suitable medical paradigm for evaluation in the overall context of the Initiatives project.
3. Make an epidemiologic, clinical and economic assessment of:
 - The estimated prevalence and level of understanding of the common STDs in Ghana
 - The management of STD care by the private sector including clinical practices, laboratory diagnosis, and antimicrobial treatment. This assessment will need to be done with the local groups and the private sector in general, including pharmacists, chemical sellers and traditional healers.
 - Estimate the cost of STD care and the demand for these services by the population
 - Assess the opportunities for improving STD services among the local groups in the short run and identification of evaluation strategies for the private sector over the long term.

This report first summarizes the prevalence of STDs and HIV in Ghana, then looks at the ongoing activities of the private sector to prevent the spread and control of these diseases particularly in Accra. In the conclusion, Initiatives is encouraged to include STDs in the context of the overall project because it will provide an opportunity to immediately implement much-needed interventions, initiate baseline data collection (for which an intervention has been identified), and begin the process of evaluation.

Trip Activities

A series of interviews, meetings, consultations, trip reports, official documents and discussions were held or reviewed to ascertain the STD situation in Ghana. This information sketches a preliminary framework for intervention and is built on the current understanding of STD prevalence, diagnosis and management in the private sector. However, because of general concern over the spread of HIV and ongoing efforts by many groups, this preliminary image may change in important ways as data become available in the next few months.

Roughly a third of the medical doctors work privately in Ghana, although many practitioners participate in both the public and private sectors. There are also a large number of nurse-midwives working in the private sector. These two groups are well-organized in the Society of General Medical and Dental Practitioners (SGMDP) and the Ghana Registered Midwives Association (GRMA). Both of these groups are local initiative groups working with the Initiatives project.

In general, there is a shortage of data on STD prevalence and management. Not unexpectedly, this is exacerbated by limited diagnostic capabilities and ineffective antibiotics. Formal government reporting mechanisms are nascent and cover only about 5,000 cases a year in a population of 16 million.

But clinical impressions from healthcare workers, in both public and private sectors, indicate that STDs are common — with a preponderance of gonorrhea or nonspecific urethritis and only a few cases of genital ulcer disease. The relative paucity of syphilis is attributed to the high prevalence of yaws and the resulting treponemal immuno-protection. These findings may not be universal; for example, Kumasi may have a higher incidence of genital ulcer disease, a noteworthy finding given the higher prevalence of HIV in Kumasi and the eastern regions (the highest rates in the country). A summary of the demand for STD care is in the table overleaf. Data on chlamydia urethritis and chancroid have not been collected. Despite the lack of quantitative documentation, there is a likely high prevalence of STDs in Ghana. This conclusion is corroborated by the better documentation of HIV infection and AIDS prevalence: Ghana now has the 11th highest rate of AIDS cases in all of Africa. Over 11,000 cases of AIDS have been diagnosed and the total number infected likely exceeds 100,000 to 150,000.

STD care is provided by a wide range of primary care practitioners. As table 1 shows (in a nonrandom sample of providers), practitioners in Accra do not have a high volume of STD cases each week. And while some facilities have an occasional capacity to perform gram stains or wet mounts, cultures sensitivity testing, serologies and others smears are relegated to special research protocols that have only recently been initiated. Universally, practitioners report that STDs are syndromically diagnosed and presumptively treated. Even the

frequency with which physical examinations are performed is unknown but direct observation suggests that this is not done in the majority of cases.

<i>Source</i>	<i>STD cases seen per week at each site^a</i>	<i>Number of facilities or practitioners</i>
Public STD clinics	1-5	two clinics (Accra and Kumasi)
Public poly-clinics	1-5	10 regions
Private practitioners	1-4	400 members in the SGMDP
Nurse-midwives	0-3	600 in the GRMA
Pharmacists	0-2	unknown
Chemical sellers	0-5	unknown
Traditional healers	0-2	Accra area only; unknown

a. Nonrandom sample; descriptive estimates provided by practitioners.

There is much interest — and much speculation — as to where patients go for STD treatment. The two public STD clinics only see a handful of cases. For example, the public STD clinic in Adabraka (Accra) saw only 113 confirmed cases of gonorrhea (no cases of syphilis) in 1990 and 38 (and three cases of syphilis) in 1991. However, in an unrelated 1993 survey of 36 Accra antenatal attendees, four women were found to be HIV positive. Therefore, care is either provided by private practitioners, pharmacists, chemical sellers or traditional healers. Traditional healers are likely a more important source of care outside of the major urban centers. In the cities, where 70 percent of the population lives, traditional healers report that patients demand modern antibiotic therapies when specific symptoms arise and thus do not seek care from these providers.

In many countries, patients seek STD care directly from pharmacists. In Ghana, concern over antibiotic resistance and professional standards has made some pharmacists reluctant to prescribe antibiotics without a prescription. On the other hand, there is multitude of chemists who are able to obtain and sell antibiotics for a patient in search of medication. Anecdotal evidence suggests they dispense β -lactams (such as penicillin) and that the quantity is limited to a few doses. There is no quantitative or even descriptive studies available on the level of care provided by either pharmacists or chemists. There is, however, a general understanding of the legal prescriptive requirements pharmacists. Based on observations during this trip, it is unlikely that accurate interview data from either of these groups can be obtained.

Thus, there is an impression that STD care is provided by a wide range of private practitioners in the formal sector and various chemists in the informal sector. While this is not particularly informative, the important implication (supported by available data) is that demand is limited and diffuse. This low demand may be due to ineffective diagnosis, treatment or health information — all market failures that are amenable to correction.

From a clinical or case-management perspective, there is little bacteriologic and serologic data available. *Penicillinase* producing neisseria gonorrhoea is presumed to be high due to the widespread availability of ampicillin and the legion of chemical sellers. Some data bears this out. In a study done at Kofo Anoyke Teaching Hospital, in Kumasi, 121 urethral and 96 endocervical smears were collected. Ninety-two percent were resistant to penicillin and erythromycin, and 97 percent resistant to tetracycline and clotrimoxazole (or Septra). The isolates were sensitive to cephalosporins and quinolones. A variety of practitioners and pharmacists suggested that this problem is compounded by the frequent practice of patients' taking only a few pills.

The cost of private STD care can be characterized as variable and contingent on the patients willingness to pay. A cost of c200 (US\$ 0.27) is charged by government facilities for registration. Private practitioners charge from c400 to c1,200, depending on the patient's ability to pay. This fee, however, is exclusive of laboratory evaluation (where available) and the cost of treatment. And while penicillin is inexpensive, it is generally ineffective. Useful therapy is often unavailable (such as third-generation cephalosporins) or expensive (for example, spectinomycin costs c3,000 for treatment). Therefore, if the outcome is the same and drugs for gonococcal urethritis are generally ineffective, the advantage of care from a chemist or a pharmacist is that it is cheaper. Thus, efforts to improve STD care must ascertain not only the cost of medical evaluation but the ability of patients to pay for effective treatment regardless of whether they seek care in the public or the private sector.

In 1988, the government in collaboration with WHO developed a medium-term plan for AIDS prevention and control. One of the specific objectives of this plan was to develop a national program for the control of STDs. In response to this plan, STD program activities have increased and international donor assistance has materialized.

Several planned and implemented activities are relevant to this report. A survey of 300 STD patients and 300 antenatal clinic attendees is scheduled for completion by early 1994. Preliminary analysis shows that urethral discharge and dysuria are the dominant symptoms for men and that vaginal discharge and lower abdominal pain are the common symptoms for women. Genital ulcers are rare. In time, this study will also have information on antibiotic resistance, HIV prevalence, prevalence syphilis antibodies, and chlamydia prevalence (by culture) among patients visiting public facilities.

Recently the National AIDS/STD Prevention and Control Programme conducted a clinical training-of-trainers program. The attendees, and now trainers, will teach public sector physicians in nine out of the 10 regions of Ghana. Treatment guidelines, based on WHO

protocols for syndromic treatment, have been adapted for local use and should be field tested soon. The government intends that every practitioner seeing STD patients have and implement these guidelines in the next few years.

Several future activities are planned. First, a small prevalence (population-based) survey is planned in the first quarter of 1994. This survey will look at health-seeking behavior in the Eastern region for patients ages 15 to 49 years (the group with the highest prevalence of AIDS in the country). The European Community is also planning to send a team from Brussels to follow-up on their April 1993 STD report (which was part of the AIDS medium-term plan review). So far the EEC plan is to support STD programs in general and is currently involved in extending the training program and developing health-education materials for patients. USAID, with technical support from REDSO, plans to conduct a nationwide facility-based survey, descriptive in nature, that specifically examines STD care by the private sector. This study, scheduled for January 1994, will have three parts: a retrospective chart review, a healthcare worker survey questionnaire, and a pharmacist survey (see appendix B). The results of this study will be used to plan the project paper for the USAID Mission due in March 1994. The Mission has requested close collaboration with Initiatives and wishes to avoid duplications with this project.

Recommendations and Next Steps

The first and most salient observation from this trip is that the local initiative groups are only beginning to grapple with possible interventions that they can include in their overall activities. The groups in Ghana need to more precisely define their activities, target populations, and specify objectives. These definitions should be done as soon as possible to facilitate the evaluation process. Evaluation efforts, however, can now be implemented (see Mann trip report of November 1993) and could be simplified if one well-defined primary care intervention was included in all the groups' activities and followed for evaluation. One simple clinical model to evaluate successes and constraints in any local initiative could be STD care.

However, there is limited data on STD care in Ghana. Even the above findings are descriptive, limited, and subject to recall or sampling bias. Impressions from this trip need to be confirmed or modified by data that may be available in 1994 (from the prevalence STD survey and the other scheduled studies). Ideally, a population based, household survey should be conducted. Such a study would collect information on STD prevalence, consumer preferences, cost and the sources of medical care.

Currently the demand for STD care is scattered and well below the clinical need. This situation is likely due to the ineffective diagnosis and treatment that currently characterizes care for STDs. This problem is pervasive — for Initiatives concern, it includes private medical practitioners. It is unclear how much care is provided by pharmacists and chemical sellers, but they may indeed serve more patients than clinically trained medical personnel. Despite this data, HIV and AIDS data suggest that the need for STD care, and therefore the prevalence of STDs, is likely to be high.

Antibiotic resistance to gonococcus will probably prove to be high for penicillin, tetracycline, and aminoglycosides. The current laboratory facilities are inadequate for on-site diagnosis. Surveys will need to quantify this problem, but planning should begin immediately to ameliorate these deficiencies.

STD activities in the private sector should be coordinated among the donor group and the National AIDS/STD Prevention and Control Programme to avoid duplication and not to inundate local capacity. Interventions, whether provided by the private or the public sector, should be standardized and implemented on a nationwide basis.

STD surveys in the private sector should, as closely as possible, use standard survey instruments developed so that comparisons can be drawn and plausible assumptions made where data is limited. WHO has established priority indicators and has survey questionnaires that should be used, to allow for cross-country comparison and ongoing national monitoring. Rough power calculations for a 20 percent change in practice standards indicate that a survey

sample size of 150 should be used for the SGMDP and 150 for the GRMA. A preliminary set of questionnaires, at the request of REDSO, has already been drawn up and is included as appendix B.

If appropriate to the overall Initiatives strategy, STD training courses could be held for the three local initiative groups (SGMDP, GRMA and the Superior Medical Foundation). If held, courses might also include training in counseling and a provision to distribute condoms. In conjunction with this training, steps need to be taken to allow the nurse-midwives to legally diagnose and treat STDs as part of their routine case of pregnant and postpartum women.

There is a need to establish a mechanism for the bulk purchase of gram stain and wet mount materials (for diagnosis) and cephalosporins or quinolones (for treatment of gonorrhoea.)

Marketing campaigns in collaboration with ongoing efforts of the National AIDS and STD Prevention and Control Programme to inform customers that effective, safe therapy is available for the treatment of STDs in the private (and public) sector could be established. Marketing should concentrate and enhance demand and make it easier for providers to remain financially viable.

Next steps

1. The local initiative groups should be encouraged (in their business operation plans) to specify the populations they wish to target and hypothesize about expected outcomes. This planning will be important to designing evaluation instruments, initiating baseline data collection, monitoring projects, and measuring changes in primary healthcare.
2. Initiatives will obtain the results of the ongoing survey of 300 STD patients and 300 antenatal clinic attendees from the National AIDS/STD Prevention and Control Programme in January 1994.
3. The Ghanaian local initiatives groups should consider including STD diagnosis and management as one of their services. STDs can serve as a suitable indicator for changes in primary care because suitable process and outcome measures for these diseases already exist. There are several other reasons for including STDs in the Ghanaian activities:
 - All three groups can provide care for patients with STDs. In the case of the GRMA, this care will be innovative and exclusively targeted towards women's health and that of the newborn.
 - Patient and provider education materials already exist in the National AIDS/STD Prevention and Control Programme. If used, these materials would align national policy with private practice, decrease costs of care, and support efforts to decrease the spread of AIDS.

- Baseline data collection of STDs in the private sector is scheduled for January 1994. It would be natural and useful for Initiatives to collaborate and support this other USAID activity.
 - While the actual activities of each group will be unique, each group will need healthcare worker training in treatment and prevention of STDs, which can be provided by Initiatives.
4. Initiatives should assist in the design and development of the USAID survey instrument. The survey is scheduled to be completed in January. This early activity gives Initiatives the opportunity to collect STD baseline data, and make a preliminary market survey data for the other local initiatives. The market data could be used in the design of the business plans.
 5. If the Initiatives project proceeds with STD interventions, then training classes for the three local initiatives in history taking, physical examination, laboratory diagnosis (gram staining and wet mount), treatment, and counseling should be planned for 1994. This training will likely require a three-day training course for the SGMDP and the Superior Medical Foundation physicians and a separate three-day course for GRMA midwives. Data collection should be planned to follow-up on the baseline data collection and estimate the results of the training intervention.

Appendix A: List of Contacts

Geneva, November 8-9, 1993

World Health Organization

Global Programme on AIDS

World Health Organization Headquarters

1211 Geneva 27

Switzerland

Tel: 41 (22) 791 2111

Fax: 41 (22) 791 0746

Dr. Thierry Mertens, Chief Evaluations, Office of Cooperation with National Programmes

Dr. Peter Exon, Operational Support and Monitoring Africa Region

Mr. Paul Howard, Operational Support and Monitoring Africa Region

Dr. David Heymann, Chief Research

Mrs. Gunilla Ernberg, Chief Administrative Services

Dr. Paul Sato, Evaluations, Office of Cooperation with National Programmes

Dr. Michel Carael, Evaluations, Office of Cooperation with National Programmes

Dr. Clement Chan Kam, OSM, SEAR WPR Operational Support and Monitoring

Dr. Peter Piot, GPA Associate Director, STD

Dr. Rudolph Wabitsch, Health Care Support

Dr. Gary Slutkin, Chief IDS, Intervention, Development and Support

Accra, November 11-16

Overseas Development Agency

Tel: 66-54-41 ext. 6473

Peter K. W. Digby, Statistical Advisor, Ghana Living Standards Survey

Ministry of Health

Dr. Beatrice Mensah, Medical Director Adabraka STD clinic

Health Research Unit

Ghana National AIDS/STD Prevention and Control Programme

Tel: 66-79-80

Dr. Phylis Antwi, Programme Manager

Mr. B. Senegal, WHO technical advisor

Dr. Asamoah-Odei, Head of STD section

National AIDS Committee

Box 44, Accra

Dr. H. H. Philips, Chairman

World Health Organisation office

Tel: 22-52-76

Dr. Brian Dando, representative

USAID, Ghana

Charles Llewelyn, HPN Officer

Pam Wolf, TAACS

David Stanton, potential coordinator for review of STD provision in the private sector

USAID REDSO

Côte d'Ivoire

Tel: (225) 41-45-29 to 31

Dr. Souleymane Barry, HIV/AIDS Technical Advisor

Dr. Aminata M'Backe, HPN Advisor

Commission of the European Community

77-42-01/2 and 77-42-36

Mr. Bas Van Helden

Mr. Soeren Kjaer

Superior Medical Foundation

Dr. Edward Mahama, private practitioner

Dr. A N Quacoe, private practitioner

Society of General Medical Practitioners

Dr. Badohu and other attendees of the monthly meeting

Ghana Registered Midwives Association

Florence Quarcopome

Mrs. P. Lovia Owusu-Asiegu

Others

Three practicing private-sector pharmacists were informally interviewed (Nov. 12, Nov. 15)

One traditional practitioner was also interviewed (@ Kojo Thompson Road, Accra, Nov. 15)

Appendix B: STD Survey Instrument

This draft survey instrument was prepared for USAID/Accra as an example of the types of information that would be useful to assess STD treatment practices in the private health sector.

Part 1: Chart review

Time frame: Review of all medical records in the past four weeks.

Sample frame: Private medical practitioners and nurse-midwives from Accra, Kumasi, and selected mission hospitals in the Eastern and Ashanti regions.

Please answer all questions

Part 1

What was the total number of patients seen in this facility:

- in the last week? _____
- in the last four weeks? _____

How many male patients in the past four weeks presented with:

- dysuria (painful urination)? _____
- urethral discharge (leakage)? _____
- genital ulcer (open sore)? _____
- swollen or tender lymph nodes? _____

How many female patients in the past four weeks presented with:

- dysuria (painful urination)? _____
- vaginal discharge? _____
- genital ulcer (open sore)? _____
- lower abdominal pain? _____
- swollen or tender lymph nodes? _____

Part 2

Of the patients seen with any of these problems:

- how many men had an examination? _____
- how many men had an examination of their genitals? _____
- how many men had any laboratory evaluation? _____
- how many women had an examination? _____
- how many women had a pelvic examination? _____
- how many women had any laboratory evaluation? _____

Part 3

How many patients were diagnosed as having:

- urethritis? _____
- genital ulcer? _____
- gonorrhea? _____
- nongonococcal urethritis? _____
- syphilis? _____
- chancroid? _____
- pelvic inflammatory disease? _____
- trichomoniasis? _____
- other? _____
- no diagnosis made _____

Part 4

Of the patients with these problems, how many were prescribed:

- any medicine? _____
- an antibiotic? _____

Part 2: Health worker practices

Time frame: Provider recall of patients seen in the past four weeks.

Sample frame: Private medical practitioners and nurse-midwives from Accra, Kumasi, and selected mission hospitals in the Eastern and Ashanti region.

Please answer all questions (unless specifically marked)

Part 1

What was the total number of patients seen by you (in this facility):

- in the last week? _____
- in the last four weeks? _____

(Omit this question for midwives)

How many male patients in the past four weeks presented with:

- dysuria (painful urination)? _____
- urethral discharge (leakage)? _____
- genital ulcer (open sore)? _____
- swollen or tender lymph nodes? _____

How many female patients in the past four weeks presented with:

- dysuria (painful urination)? _____
- vaginal discharge? _____
- genital ulcer (open sore)? _____
- lower abdominal pain? _____
- swollen or tender lymph nodes? _____

What percentage of your patients with suspected STDs sought medical care from other sources before coming to you? _____%

Of the patients that have already sought care, estimate the source of previous care from:

- pharmacists _____%
- chemical sellers _____%
- traditional practitioners _____%
- public facilities _____%
- other _____%

How many patients have you seen in the past four weeks for:

- prenatal care? _____
- postpartum care? _____

Of the women seen for prenatal care,

- what percentage do you screen for STDs? _____%

Part 2

As part of the evaluation of a patient with a suspected STD, do you routinely do:

(midwives omit)

Never Rarely Sometimes Usually Always

- a physical examination on men?
- including a genital examination?
- any laboratory tests?

(all providers)

- a physical examination on women?
- including a pelvic examination?
- any laboratory tests?

Do you have a laboratory facility on site at your facility? Y / N

If you do, can the laboratory perform:

- gram staining? _____
- bacterial cultures? _____
- TPHA serology? _____

Part 3

How many patients have you seen in the past month who had the "syndromic" diagnosis of:

- urethritis? _____
- genital ulcer(s)? _____
- lymphadenopathy? _____
- for women, lower abdominal pain? _____

Do you generally make a more specific diagnosis? Y / N (circle)

If so, how many patients have you seen in the past month that you diagnosed as having:

- gonorrhea? _____
- non gonococcal urethritis? _____
- syphilis? _____
- chancroid? _____
- trichomoniasis? _____
- pelvic inflammatory disease? _____
- other? _____

(Midwives only)

If you suspect an STD do you have a place you can refer patients?

Y / N (circle)

- is this a public or a private facility (circle one)

Part 4

(Physicians only. Mark all that are applicable to your practice)

What do you prescribe for men with urethritis:

<i>Patients with only limited income</i>	<i>Patients with with adequate income</i>
- penicillin	
- ampicillin/amoxicillin	
- tetracycline/doxycycline	
- clotrimoxazole (Septra/Bactrim)	
- spectinomycin/kanamycin	
- a quinolone (eg. norfloxacin)	
- a cephalosporin	
- erythromycin	
- metronidazole	
- other	

What do you prescribe for women with a vaginal discharge or urethritis:

<i>Patients with with only limited income</i>	<i>Patients with with adequate income</i>
- penicillin	
- ampicillin/amoxicillin	
- tetracycline/doxycycline	
- clotrimoxazole (Septra/Bactrim)	
- spectinomycin/kanamycin	
- a quinolone (eg. norfloxacin)	
- a cephalosporin	
- erythromycin	
- metronidazole	
- other	

What do you prescribe for men with genital ulcer disease:

<i>Patients with with only limited income</i>	<i>Patients with with adequate income</i>
- penicillin	
- tetracycline/doxycycline	
- a cephalosporin	
- erythromycin	
- other	

What do you prescribe for women with genital ulcer disease:

<i>Patients with with only limited income</i>	<i>Patients with with adequate income</i>
- penicillin	
- tetracycline/doxycycline	
- a cephalosporin	
- erythromycin	
- other	

Part 5

Do you have health education materials about the prevention of STDs and HIV?

Does your facility have a person who can education patients about the prevention of STDs and HIV?

As a clinician, do you have the time to provide counseling on prevention of STDs and HIV?

Are condoms available at your facility?

Part 6

How much do you charge patients with STDs for the initial visit? c _____

How much do you charge for:

- a gram stain c _____
- culture c _____
- blood work (TPHA) c _____

Does your (private) facility have antibiotics available to sell to patients?

Y / N (circle)

Part 3: Pharmacist survey

Time frame: All patients visiting pharmacists in the past four weeks.

Sample frame: Pharmacists in Accra, Kumasi, and selected mission hospitals in the Eastern and Ashanti regions.

Please answer all questions

What was the total number of patients requesting medicines (that can be described as a regulated drug) in this facility:

- in the last one week? _____
- in the last four weeks? _____

Of those that requested a regulated drug, what percentage had a prescription? _____ %

How many male patients in the past four weeks came into the pharmacy complaining that they had:

- dysuria (painful urination)? _____
- urethral discharge (leakage)? _____
- genital ulcer (open sore)? _____
- swollen or tender lymph nodes? _____

What percentage of them had seen a doctor? _____ %

How many female patients in the past four weeks presented with:

- dysuria (painful urination)? _____
- vaginal discharge? _____
- genital ulcer (open sore)? _____
- lower abdominal pain? _____
- swollen or tender lymph nodes? _____

What percentage of them had seen a doctor? _____ %